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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,443	11/30/2001	James R. Halladay	IR-2970(AA)	3436

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EXAMINER

HARLAN, ROBERT D

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/997,443

Applicant(s)

HALLADAY ET AL.

Examiner

Robert D. Harlan

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 2 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-14 and 16 in Paper No. 10 is acknowledged.

***Drawings***

2. A PTO-948 form accompanies this non-final office action. The Applicants may delete the drawings by amendment.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 3-7 and 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the Applicants recite "A coating composition in two parts." Does the coating composition exists in two separate part or are the

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two parts on the same continuum (macromolecule)? Based on the reading of the specification it is difficult interpret.

5. Claims 3-7 are outside the scope of claim 1 with respect to the grafting agents. The Applicants recite in claim 1, "said grafting agent containing at least one hydroxyl group." At least one of the choices in dependent claims 3-7 do not contain a hydroxyl group.

6. In claim 1, is a hydroxyl reactive cross-linking group separate from an isocyanate group or are the two synonymous? In other words, does the presence of two isocyanate groups satisfy the functionality requirement for the curing component.

7. Claims 11-14 recite the limitation "said di- or polyisocyanate" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 8, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanada et al., U.S. Patent No. 5,621,042 (hereinafter "Hanada"). Hanada teaches a coating composition containing a fluoropolymer with a silane-coupling agent containing at least one free isocyanate group and the fluoropolymer may be modified with a reaction product of a polysiloxane or fluorine compound containing a reactive organic functional group with a polyisocyanate. Hanada, Abstract; col. 1, line 57 through col. 2, line 33. Hanada further teaches that

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polysiloxane compounds containing one or more reactive organic functional groups may include primary amino-modified polysiloxane oils. Hanada, col. 3, lines 2-44. Hanada further teaches that the polysiloxane compounds are reacted with polyisocyanates in a host organic solvents. Hanada, col. 7, line 25 through col. 8, line 60; col. 9, lines 47-54. Hanada further teaches suitable fluoropolymers including copolymers of fluorine containing olefin monomers and a monomer containing one or more function groups reactive with a isocyanate group such as hydroxyl, carboxyl, amino and epoxy groups. Hanada, col. 9, line 64 through col. 10, line 3.

11. The basic requirements of prima facie case of obvious are: (1) there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP 2143. "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the

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knowledge of persons of ordinary skill in the art." See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). Although Hanada does not disclose in the working examples the grafting agents of the present invention, based on the specification as a whole a polymer chemist of ordinary skill in the art would be motivated to modify Hanada by preparing fluoropolymer with a comonomer(s) containing a hydroxyl and amino group. Such modification would be obvious because one would have a reasonable expectation of success that fluoropolymers with hydroxyl and amino functionality as taught by Hanada would be similarly useful and applicable to coating compositions. Therefore, claims 1, 8, 10 and 16 are deemed as being unpatentable over Hanada.

***Allowable Subject Matter/Reasons for Allowance***

12. Claims 2 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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13. Claims 3-7 and 11-14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

14. The following is an examiner's statement of reasons for allowance: The closest prior art located or identified by the Examiner is Hanada.

15. As of the date of this non-final office action, the Examiner has not located or identified any reference that can be used singularly or in combination with another reference including Hanada to render the present invention anticipated or obvious to one of ordinary skill in the art.

16. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."



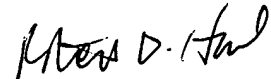
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**Conclusion**

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert D. Harlan whose telephone number is (703) 306-5926. The examiner can normally be reached on Mon-Fri, 10 AM - 8 PM.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9559 for regular communications and (703) 872-9559 for After Final communications.

19. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1495.

  
Robert D. Harlan  
Primary Examiner  
Art Unit 1713

rdh  
July 29, 2003